

## Chairman Dingell at the Subcommittee on Energy and Air Quality hearing entitled "CO2 Capture and Sequestration: An Overview"

Statement of Congressman John D. Dingell, Chairman  
Committee on Energy and Commerce

SUBCOMMITTEE ON ENERGY AND AIR QUALITY  
HEARING ENTITLED  
"CO2 CAPTURE AND SEQUESTRATION:  
AN OVERVIEW"  
March 6, 2007

Mr. Chairman, good morning and thank you for calling this hearing. Today we continue our series of hearings on climate change with an overview on the topic of carbon capture and sequestration, commonly referred to as "CCS."

CCS refers to the system of separating CO2 from either the fuel source - which is usually coal - or the flue gas that results from combustion, and then storing that CO2 in an underground geologic formation.

CCS will be a critical component of any policy that restricts and reduces carbon dioxide emissions due to the simple fact that coal is, and will continue to be, a major part of America's energy resource base. The United States has an estimated 250 years worth of coal. According to the Energy Information Administration, coal provides fuel for 50 percent of our electric generation needs today. We must, however, also recognize that coal-fired electric generation is a major source of CO2 emissions. The challenge we face is how to continue use of this country's abundant coal supplies to meet our energy needs, while at the same time limiting the amount of CO2 we add to the atmosphere. I look forward to hearing from our experts today about how CCS can help us meet that challenge.

Capturing CO2, transporting it, and storing it safely are the three basic components of a CCS policy. The Subcommittee's work today will focus on the challenges of capturing and storing CO2 because these areas present the greatest difficulty, but I must note that transportation is not without its challenges. The U.S. currently has some 1,500 miles of pipeline devoted to CO2 transport, mainly in Texas where it is used for enhanced oil recovery. The amount of CO2 that would need to be sequestered under a mandatory CO2 reduction policy, however, would likely dwarf that capacity. I hope we can explore this aspect of CCS at a later date.

With regard to the capture of CO2, we have several excellent witnesses here today who can speak to the specific technology options, their state of readiness for commercial deployment, and their costs. I hope our witnesses will also inform us as to how a climate policy should take technology readiness into account. Can we achieve significant reductions in greenhouse gas emissions before carbon capture technologies are fully mature? Will we be able to retrofit our existing coal generation fleet with any of these technologies or will they only apply to new plants?

On the issue of sequestration, we also have distinguished witnesses who can inform us as to the availability of storage sites in the United States, the capacity of such sites, and the legal issues that arise from storing large volumes of CO2 underground for long periods of time. To date the Committee has not spent a great amount of time studying carbon capture and sequestration but the issues raised by CCS are familiar from our work on hazardous waste and environmental contamination issues. How do we know that CO2 injected underground will stay there? Will it affect underground water sources? What do we need to know to assure the public that this is a safe way to proceed? I would

also like our witnesses' thoughts on who should manage these locations. Who should hold title to the CO<sub>2</sub> after it is captured? The Federal Government? The States? Private entities?

Another issue that I hope all witnesses can illuminate for us, including our guests from the Environmental Protection Agency and the Department of Energy, is the issue of the cost associated with CCS. The Department of Energy currently estimates the cost of capture and sequestration using current technologies at between \$100 and \$300 per ton of carbon emissions avoided. That is a rather wide range that could make a significant difference in the effectiveness of a CCS policy. What do we need to do to get a better understanding of costs? Will costs come down as technology matures?

I look forward to the testimony of our witnesses today and hope that this hearing will start to answer some of these difficult questions.

- 30 -

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